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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/772,096

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Philipp H. Schmid

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WESTMAN CHAMPLIN (MICROSOFT CORPORATION)

SUITE 1400

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MINNEAPOLIS, MN 55402-3319

EXAMINER

KOVACEK, DAVID M

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/772,096

Applicant(s)

SCHMID ET AL.

Examiner

David Kovacek

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. The claims are objected to because the lines are crowded too closely together, making reading difficult. Substitute claims with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).

3. **Claim 14** is objected to because of the following informalities: the term "dictation grammar" is not defined in such a way that the meaning would be clear and unambiguous to one of ordinary skill in the art.

One of ordinary skill in the art could reasonably interpret "dictation grammar" to mean either "a grammar relating to anticipated dictation speech" or "a grammar created to accommodate unanticipated dictation speech." This ambiguity is not appropriately resolved in **claim 14**, nor in the specification. For the purposes of examination, the former definition was used.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claim 14** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

One of ordinary skill in the art could reasonably interpret "dictation grammar" to mean either "a grammar relating to anticipated dictation speech" or "a grammar created to accommodate unanticipated dictation speech." This ambiguity is not appropriately resolved in **claim 14**, nor in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. **Claims 1-3, 7, 19-20, 26, 28, and 30** are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Application 2003/0018476 hereinafter referred to as Yuen.

Regarding **claim 1**, Yuen teaches a speech-related object model for use in speech-related tasks as part of a managed code layer (Page 2, paragraph 0017). This is further implied in the Detailed Description of the disclosed invention (Page 3, paragraphs 0045-0046). It is noted by the examiner that “managed code layer” can be interpreted by one of ordinary skill in the art to include any running instance of an interpreted programming language, and though “managed code layer” is not specifically mentioned, Yuen's disclosure inherently incorporates this.

Regarding **claim 2**, Yuen teaches the limitations of **claim 1** as applied above, and additionally discloses the inclusion of object models not related to speech comprising objects exposing non-speech members for use in non-speech-related tasks (Page 2, paragraph 0018).

Regarding **claim 3**, Yuen teaches all limitations of **claim 2** as applied above, and further implies that object models are accessed in the same fashion regardless of whether or not they are speech-related (Page 2, paragraph 0018).

Regarding **claim 7**, Yuen teaches all limitations of **claim 1** as applied above, and additionally discloses an object configured to represent a speech recognizer (Fig. 1A-1B, item 132; page 1, paragraph 0009; page 3, paragraph 0042).

Regarding **claim 19**, Yuen teaches all limitations of **claim 1** as applied above, and additionally discloses an object configured to represent a speech synthesizer (Page 1, paragraph 0006; page 1, paragraph 0012; page 4, paragraph 0051). It is noted by the examiner that "speech synthesizer" can be interpreted by one of ordinary skill in the art to be synonymous with "speech rendering engine."

Regarding **claim 20**, Yuen teaches all limitations of **claim 19** as applied above, and additionally discloses members of a voice object accessible for synchronous speak operations (Page 6, paragraph 0077) and non-synchronous speak operations (Page 6, paragraph 0076).

Regarding **claim 26**, Yuen teaches an object model comprising a set of speech-related objects having members accessible by applications to perform speech-related tasks (Page 2, paragraph 0017; page 3, paragraphs 0045-0046).

Regarding **claim 28**, Yuen teaches all limitations of **claim 26** as applied above, and additionally discloses that the accessible members can perform speech synthesis tasks (Page 1, paragraph 0009; page 3, paragraph 0042).

Regarding **claim 30**, Yuen teaches all limitations of **claim 26** as applied above, and additionally discloses a dynamic grammar object with exposed members to implement a dynamic grammar (Page 3-4, paragraph 0047; page 4, paragraph 0054-0056). It is noted that Yuen discloses the term "dialog" to specifically include object models relating to speech applications (Page 4, paragraph 0050).

6. **Claims 1-2, and 26** are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Application 2002/0010588 hereinafter referred to as Fujimori.

Regarding **claim 1**, Fujimori teaches a managed code layer having a speech-related object model with members for performing speech-related tasks (Page 3, paragraph 0033; page 4, paragraph 0065). It is noted by the examiner that "managed code layer" can be interpreted by one of ordinary skill in the art to include any running instance of an interpreted programming language, and though "managed code layer" is not specifically mentioned, Fujimori's disclosure inherently incorporates this.

Regarding **claim 2**, Fujimori teaches all limitations of **claim 1** as applied above, and additionally discloses the inclusion of a non-speech object model exposing non-speech members not intended for speech-related tasks (Page 5, paragraph 0068).

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Regarding **claim 26**, this claim is very similar to **claim 1** and is rejected for the same reasons.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 3-6 and 29** rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of US Patent 5,455,854 hereinafter referred to as Dilts.

Regarding **claim 3**, Yuen teaches all limitations of **claims 1-2** as applied above, but only implies that speech and non-speech objects are accessed using the same techniques (Page 2, paragraph 0018). Dilts explicitly teaches a set of object models for speech and non-speech usage that are accessible using the same techniques (Col. 15-20; Col. 34-50).

Motivation to combine exists inherently, as both references pertain to a computer-based telephony system using object-oriented systems. This is additionally evident in considering that Dilts teaches at a low level of abstraction an invention that can be used to help achieve an implementation of the invention disclosed by Yuen.

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Therefore, the examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Yuen using the teachings of Dilts.

Regarding **claim 4**, Dilts additionally teaches that members not related to speech include methods, properties acted upon by methods, and events triggered by a state of the non-speech object (Col. 15-30; Col. 34-50).

Regarding **claim 5**, Dilts additionally teaches that members related to speech include methods, properties acted upon by methods, and events triggered by a state of the speech object (Col. 15-30; Col. 34-50).

Regarding **claim 6**, Dilts additionally teaches that all members of all objects are designed to be specified and invoked in a consistent way (Col. 15-30; Col. 34-50).

Regarding **claim 29**, this claim is similar to **claim 6** and is rejected for the same reasons.

8. **Claims 8-18 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of US Patent 6,513,010 hereinafter referred to as Lewin.

Regarding **claim 8**, Yuen teaches all limitations of **claim 7** as described above, but does adequately not teach a grammar object model configured to represent a grammar to be used in recognizing speech.

Lewin teaches a grammar object model configured to represent a grammar in use for speech recognition (Col. 3, lines 63-64; col. 6, lines 1-3; col. 6, lines 33-35).

Motivation to combine exists inherently, as both references pertain to a system using object-oriented systems that transfers voice data across a network for the purposes of voice recognition. Lewin discloses at a low level of abstraction an invention that can be used to help achieve an implementation of the invention disclosed by Yuen.

Therefore, the examiner contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Yuen using the teachings of Lewin.

Regarding **claim 9**, Lewin further discloses a recognition result object (Col. 6, lines 5-10).

Regarding **claim 10**, Lewin further discloses an event handler that reacts to events generated by the recognition result object (Col. 5, lines 23-26; col. 5, lines 39-44).

Regarding **claim 11**, Lewin discloses control of object models controlled by an outside application (Col. 5, lines 62 – Col. 6, line 3).

Regarding **claim 12**, Lewin discloses that the recognition result object is accessed by a domain that can include multiple process (Col. 5, lines 45-46).

Regarding **claim 13**, Yuen further discloses the use of XML-based grammar objects (Page 4, paragraph 0055; page 8, paragraph 0106; page 8, paragraph 0120).

Regarding **claim 14**, Yuen further discloses a dictation grammar object (Page 8, paragraphs 0106-0110).

Regarding **claim 15**, Yuen further discloses a dynamic grammar object for dynamically generating a grammar at runtime (Pages 3-4, paragraph 0047; page 4, paragraphs 0054-0056).

Regarding **claim 16**, Yuen further discloses that grammar that is represented by a grammar object has associated semantic properties (Page 4, paragraph 0050; page 6, paragraph 0080). Lewin additionally discloses that a grammar object includes associated semantic properties (Col. 3, lines 43-46; col. 5, lines 23-26; col. 6, lines 33-49).

Regarding **claim 17**, Lewin discloses the emission of associated semantic properties based on one of a plurality of mechanisms (Col. 6, lines 25-49).

Regarding **claim 18**, Lewin further discloses that semantic properties are emitted in a consistent way regardless of the mechanism used (Col. 6, lines 25-30).

Regarding **claim 27**, this claim is similar to **claim 8**, and is rejected for the same reasons.

9. **Claims 21-23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in view of US Patent application 2002/0055843 hereinafter referred to as Sakai.

Regarding **claim 21**, Yuen teaches all limitations of **claim 19** as applied above, but does not teach the specification of a speech synthesizer based upon voice characteristics.

Sakai discloses a user-adjustable set of voice parameters that control the selection from a set of voice synthesizers (Page 1, paragraph 0009; page 4, paragraph 0050; page 4, paragraphs 0053-0055).

Sakai further provides motivation to combine in disclosing a voice synthesis system that is consonant to the tastes of the end-user (Page 1, paragraph 0007).

Therefore, the examiner contends it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yuen with the teachings of Sakai in order to create a system of voice data transfer over a network using voice synthesis that is adjustable according to the preferences of the end-user.

Regarding **claim 22**, Sakai further discloses that voice model attributes represent attributes of the synthesized voice (Fig. 6, items 60-62; page 4, paragraph 0050; page 4, paragraph 0053).

Regarding **claim 23**, Sakai further discloses a synthesis event handler configured to handle voice events (Page 4, paragraph 0061; page 5, paragraphs 0063-0066).

10. **Claims 24-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuen in further view of US Patent 6,078,885, hereinafter referred to as Beutnagel.

Regarding **claim 24**, Yuen teaches all limitations of **claim 1** as applied above, but does not specify a plurality of interdependent grammars.

Beutnagel specifies a plurality of grammars wherein the rules of each grammar refer to rules in the other grammar (Col. 4, lines 19-21; col. 4, lines 27-31; col. 5, lines 45-56; col. 8, lines 6-13).

Beutnagel provides motivation to combine in disclosing the need for customization of phonetic dictionaries of a speech synthesizer based upon geographical dialects (Col. 1, lines 23-26).

Therefore, the examiner contends that it would have been obvious for one of ordinary skill in the art at the time the invention was made to combine the teachings of Yuen with the teachings of Beutnagel in order to create a system of voice data transfer over a network using voice synthesis that is adjustable to match the regional dialects of an end-user.

Regarding **claim 25**, Beutnagel further discloses a grammar maintenance component that updates a grammar based upon a change in the rules of another grammar (Fig. 1, item 120; fig. 2; col. 5, lines 45-46; col. 7, line 67 – col. 8, line 5).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Novosel et al. (US Patent 5,855,004) discloses an apparatus that uses both synchronous and asynchronous audio synthesis.
- Galanes et al. (US Patent Application 2004/0073431) teaches the use of XML in web server dialogs.
- Da Palma et al. (US Patent Application 2005/0135572) teaches a method and system of compiling and storing VXML data as well as a utilization of voice recognition.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Kovacek whose telephone number is (571) 270-3135. The examiner can normally be reached on M-F 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Eisen can be reached on (571) 272-7687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alexander Eisen
SPE
Art Unit 2609

DMK 06/22/2007